Subject and title index 1977

Plastics Engineering, Volume 33

A

1. ABS

The ABCs of electroplating ABS, N. Anis, January, p. 14

Using liquid color to best advantage, J. P. Snow, Jr. and W. M. Arnheim, June, p. 17

Resin report '77—a new high in sight, PE Staff, September, p. 19

2. Abrasion

An alternative to characterizing UHMW PE by molecular weight, A. Barlow and T. Ryle, August, p. 41

3. Acrylics

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

Resin report '77—a new high in sight, PE Staff, September, p. 19

4. Additives

Additives for plastics—plasticizers, PE Staff, January, p. 32

Rigid vinyls: A review and what's new, Delaware Valley Section, January, p. 58

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Using carbon fibers to reinforce plastics, M. B. Dowell, April, p. 31

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

Additives for plastics: fillers and reinforcements, R. W. Kuchkuda, July, p. 45

Additives for plastics—colorants, T. B. Reeve, August, p. 31

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

Additives for plastics—blowing agents, PE Staff, December; p. 17

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

5. Alkyds

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

6. Analysis

Plastics analysis—a way to save time and money, R. J. Richman, January, p. 18

Today's polymer analyst is more than just a technical answer man, T. J. Gedemer, March, p. 55

Thermal analysis simplifies accelerated life-testing of plastics, B. Cassel and A. P. Gray, May, p. 56

Plastics processing systems: How does yours measure up? PE Staff, July, p. 27

7. Annual Technical Conference

SPE's 35th annual technical conference, G. R. Forger, March, p. 22

Who to look for at ANTEC, April, p. 18

ANTEC 77: Progress through people, July, p. 18

8. Antioxidants

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

9. Applications

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

Additives for plastics—plasticizers, PE Staff, January, p. 32

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

Using carbon fibers to reinforce plastics, M. B. Dowell, April, p. 31

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Selective plating: a simple way to repair molds on the press, C. E. Kroha, June, p. 24

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

When, where, and how to use polyimides, J. D. Hensel, October, p. 20

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

Additives for plastics—blowing agents, PE Staff, December, p. 17

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

10. Automation

Design—Polyacetal replaces metal in a computer print-out binder, R. W. Murphy, May, p. 50

11. Automobiles

Plastics are getting better mileage in Detroit, PE Staff, May, p. 17

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

12. Auto-Oxidation

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

B

13. Blowing Agents

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Additives for plastics—blowing agents, PE Staff, December, p. 17

C

14. Capacity

A close look at PVC today, W. R. Sorenson, April, p. 22

15. Carbon Fibers

Using carbon fibers to reinforce plastics, M. B. Dowell, April, p. 31

16. Catalysts

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

17. Cellulosics

Additives for plastics—plasticizers, PE Staff, January, p. 32

18. Characterization

An alternative to characterizing UHMW PE by molecular weight, A. Barlow and T. Ryle, August, p. 41

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

19. Chromaticity

Using chromaticity diagrams for pigment selection, D. Osmer, September, p. 38

20. Color

Additives for plastics—colorants, T. B. Reeve, August, p. 31

Using chromaticity diagrams for pigment selection, D. Osmer, September, p. 38

Decorating Plastics 1980, Chicago Section, September, p. 65

21. Colorants

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Additives for plastics—colorants, T. B. Reeve, August, p. 31

The law and you, Eastern New England Section, August, p. 59

22. Composites

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

23. Construction

Designing with plastics—PVC profiles in construction, R. C. Durham, Jr., June, p. 21

Plastics molds/dies—design/construction, Palisades, Philadelphia, and Newark Sections, August, p. 61

24. Corona Discharge

Corona-discharge treatment of polyolefin films, R. M. Sonkin, February, p. 50

25. Cracking

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

26. Creep

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

27. Crystallinity

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

D

28. Decomposition

Measuring thermal stability of polymers, C. H. Stapfer, December, p. 35

29. Decorating

Decorating Plastics 1980, Chicago Section, September, p. 65

30. Deformation

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

31. Degradation

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

Measuring thermal stability of polymers, C. H. Stapfer, December, p. 35

32. Design

The ABCs of electroplating ABS, N. Anis, January, p. 14

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

Designing and molding with thermosets, Philadelphia Section, January, p. 57

A guide to better extruder-screw design, C. I. Chung, February, p. 34

Tips for engineering phenolic parts, R. L. Dow, February, p. 45

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Design—Polyacetal replaces metal in a computer print-out binder, R. W. Murphy, May, p. 50

Designing with plastics—PVC profiles in construction, R. C. Durham, Jr., June, p. 21

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Injection-moldable GRP—a challenge to designers, M. L. Callahan, August, p. 25

Plastics molds/dies—design/construction, Palisades, Philadelphia, and Newark Sections, August, p. 61

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

When, where, and how to use polyimides, J. D. Hensel, October, p. 20

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

33. Discoloration

Discoloration of pigmented polyolefins, D. A. Holtzen, April, p. 43

34. Divestiture

Break up the oil companies—and where do we go from there? J. S. Oostermeyer, July, p. 42

35. Division Technical Conference

Processing for properties, Engineering Properties and Structure Division, August, p. 58

36. Dynamic Mechanical Analysis

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

E

37. Ecology

How will plastic waste be reused in 20 years?, H. P. Schreiber, January, p. 40

38. Economics

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Plastics processing systems: How does yours measure up?, PE Staff, July, p. 27

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Machine-hour costs: processors must know them to survive, E. G. Slatcher, October, p. 26

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

39. Education

Technology interface: how it's done in West Germany, H. G. Wiegand and B. Lauer, November, p. 45

40. Efficiency

Machine-hour costs: processors must know them to survive, E. G. Slatcher, October, p. 26

41. Elastomers

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

42. Electrical Properties

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

43. Electroplating

The ABCs of electroplating ABS, N. Anis, January, p. 14

44. Encapsulation

Processing: flameproofing electronic components, G. F. Chadwick and J. F. Ott, November, p. 49

45. Epoxies

Additives for plastics—plasticizers, PE Staff, January, p. 32

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Resin report '77—a new high in sight, PE Staff, September, p. 19

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

46. Extruders

A guide to better extruder-screw design, C. I. Chung, February, p. 34

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

47. Extrusion

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

F

48. Fillers

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Additives for plastics: fillers and reinforcements, R. W. Kuchkuda, July, p. 45

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

49. Film

Corona-discharge treatment of polyolefin films, R. M. Sonkin, February, p. 50

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

50. Flame Proofing

Processing: flameproofing electronic components, G. F. Chadwick and J. F. Ott, November, p. 49

51. Flame Retardants

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

52. Flammability

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

Processing: flameproofing electronic components, G. F. Chadwick and J. F. Ott, November, p. 49

53. Flexural Properties

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

54. Flow

How to compensate for flow behavior in injection molds, D. B. Hunkar, July, p. 40

55. Fluoropolymers

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

56. Foam

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

57. Foils

The art of selecting pigments for hot-stamping foils, H. J. Conklin, August, p. 22

G

58. Glass Fibers

Injection-moldable GRP—a challenge to designers, M. L. Callahan, August, p. 25

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

59. Graphite

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

H

60. Handling

The ABCs of electroplating ABS, N. Anis, January, p. 14

61. Hot Stamping

The art of selecting pigments for hot-stamping foils, H. J. Conklin, August, p. 22

I

62. Impact Modifiers

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

63. Impact Properties

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

64. Inhibitors

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

65. Injection Molding

Processing plastics—servocontrolled injection molding, M. A. Davis, April, p. 26

How to compensate for flow behavior in injection molds, D. B. Hunkar, July, p. 40

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

66. Instrumentation

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

L

67. Law

The law and you, Eastern New England Section, August, p. 59

68. Light Curing

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. C. Greth, May, p. 52

69. Lubricants

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

M

70. Machinery

A guide to better extruder-screw design, C. I. Chung, February, p. 34

Selective plating: a simple way to repair molds on the press, C. E. Kroha, June, p. 24

Plastics processing systems: How does yours measure up? PE Staff, July, p. 27

Stretch-forming: a simple process with a lot of potential, P. M. Coffman, August, p. 19

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

71. Maintenance

Selective plating: a simple way to repair molds on the press, C. E. Kroha, June, p. 24

72. Markets

Reinforced-plastics markets attain new highs, March, p. 20

A close look at PVC today, W. R. Sorenson, April, p. 22

Resin report '77—a new high in sight, PE Staff, September, p. 19

Interplas 77—the UK plastics industry is revived, PE Staff, November, p. 52

73. Materials Selection

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

74. Mechanical Properties

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

75. Mechanism

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Discoloration of pigmented polyolefins, D. A. Holtzen, April, p. 43

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

76. Melt Processing

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

77. Molding

Designing and molding with thermosets, Philadelphia Section, January, p. 57

Tips for engineering phenolic parts, R. L. Dow, February, p. 45

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Processing plastics—servocontrolled injection molding, M. A. Davis, April, p 26

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Selective plating: a simple way to repair molds on the press, C. E. Kroha, June, p. 24

Federal laws and the molder: how to learn to live with them, R. S. DeBell, June, p. 27

Plastics molds/dies—design/construction, Palisades, Philadelphia, and Newark Sections, August, p. 61

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

Machine-hour costs: processors must know them to survive, E. G. Slatcher, October, p. 26

78. Molecular Weight

An alternative to characterizing UHMW PE by molecular weight, A. Barlow and T. Ryle, August, p. 41

79. Morphological Properties

A close look at PVC today, W. R. Sorenson, April, p. 22

N

80. National Plastics Exposition

NPE/76 was bigger than ever, February, p. 30

81. National Technical Conference

NATEC Advance Program, September, p. 56

NATEC-Denver, October, p. 41

82. Nylon

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

Resin report '77—a new high in sight, PE Staff, September, p. 19

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

O

83. Oil

Break up the oil companies—and where do we go from there? J. S. Oostermeyer, July, p. 42

84. Organotin Compounds

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

85. Orientation

Stretch-forming: a simple process with a lot of potential, P. M. Coffman, August, p. 19

P

86. Packaging

Rigid vinyls: A review and what's new, Delaware Valley Section, January, p. 58

87. Performance

Additives for plastics—plasticizers, PE Staff, January, p. 32

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

88. Phenolics

Tips for engineering phenolic parts, R. L. Dow, February, p. 45

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Resin report '77—a new high in sight, PE staff, September, p. 19

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

89. Physical Properties

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

Processing for properties, Engineering Properties and Structure Division, August, p. 58

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

Nylon 6—it offers versatility to designers and molders, D. E. Stewart and J. Gervasi, September, p. 33

When, where, and how to use polyimides, J. D. Hensel, October, p. 20

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

90. Pigments

Discoloration of pigmented polyolefins, D. A. Holtzen, April, p. 43

The art of selecting pigments for hot-stamping foils, H. J. Conklin, August, p. 22

Additives for plastics—colorants, T. B. Reeve, August, p. 31

The law and you, Eastern New England Section, August, p. 59

Using chromaticity diagrams for pigment selection, D. Osmer, September, p. 38

91. Pipe

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

92. Plasticizers

Additives for plastics—plasticizers, PE Staff, January, p. 32

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

93. Plastics

Plastics analysis—a way to save time and money, R. J. Richman, January, p. 18

Additives for plastics—plasticizers, PE Staff, January, p. 32

How will plastic waste be reused in 20 years? H. P. Schreiber, January, p. 40

Report from Yugoslavia, R. B. Seymour, January, p. 20

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Processing plastics—spin casting thermoset parts, L. S. Schaer, February, p. 48

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Processing plastics—servocontrolled injection molding, M. A. Davis, April, p. 26

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Thermal analysis simplifies accelerated life-testing of plastics, B. Cassel and A. P. Gray, May, p. 56

Plastics are getting better mileage in Detroit, PE Staff, May, p. 17

Designing with plastics—PVC profiles in construction, R. C. Durham, Jr., June, p. 21

Plastics processing systems: How does yours measure up? PE Staff, July, p. 27

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

Additives for plastics: fillers and reinforcements, R. W. Kuchkuda, July, p. 45

Additives for plastics—colorants, T. B. Reeve, August, p. 31

Decorating Plastics 1980, Chicago Section, September, p. 65

NATEC-Denver, October, p. 41

1978—high-gear year for plastics in Detroit, R. S. Hallas, November, p. 21

Technology interface: how it's done in West Germany, H. G. Wiegand and B. Lauer, November, p. 45

Interplas 77—the UK plastics industry is revived, PE Staff, November, p. 52

94. Plating

Selective plating: a simple way to repair molds on the press, C. E. Kroha, June, p. 24

95. Polyacetals

Design—Polyacetal replaces metal in a computer print-out binder, R. W. Murphy, May, p. 50

Resin report '77—a new high in sight, PE Staff, September, p. 19

96. Polyamides

Additives for plastics—plasticizers, PE Staff, January, p. 32

97. Polybutylene

Resin report '77—a new high in sight, PE Staff, September, p. 19

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

98. Polybutylene Terephthalate

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

99. Polycarbonate

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

100. Polyesters

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Injection-moldable GRP—a challenge to designers, M. L. Callahan, August, p. 25

Thermoplastic polyesters in automotive ignition, S. Telofski, December, p. 21

101. Polyethylene

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Corona-discharge treatment of polyolefin films, R. M. Sonkin, February, p. 50

An alternative to characterizing UHMW PE by molecular weight, A. Barlow and T. Ryle, August, p. 41

Resin report '77—a new high in sight, PE Staff, September, p. 19

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

102. Polyimides

When, where, and how to use polyimides, J. D. Hensel, October, p. 20

103. Polymer Analysis

Today's polymer analyst is more than just a technical answer man, T. J. Gedemer, March, p. 55

104. Polyolefins

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Corona-discharge treatment of polyolefin films, R. M. Sonkin, February, p. 50

Discoloration of pigmented polyolefins, D. A. Holtzen, April, p. 43

105. Polyphenylene Oxide

Resin report '77—a new high in sight, PE Staff, September, p. 19

106. Polyphenylene Sulfide

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

107. Polypropylene

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Stretch-forming: a simple process with a lot of potential, P. M. Coffman, August, p. 19

Resin report '77—a new high in sight, PE Staff, September, p. 19

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. E. Ridenour, November, p. 33

108. Polystyrene

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Resin report '77—a new high in sight, PE Staff, September, p. 19

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

Extrusion screws with a twist—twin-channel mixing, G. A. Kruder and R. W. Ridenour, November, p. 33

109. Polysulfone

Polysulfone coming on strong for electrical applications, R. M. Eichhorn, February, p. 53

110. Polyurethanes

Additives for plastics—plasticizers, PE Staff, January, p. 32

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Resin report '77—a new high in sight, PE Staff, September, p. 19

111. Polyvinyl Acetate

Additives for plastics—plasticizers, PE Staff, January, p. 32

112. Polyvinyl Chloride

Additives for plastics—plasticizers, PE Staff, January, p. 32

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

A close look at PVC today, W. R. Sorenson, April, p. 22

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

Thermal analysis simplifies accelerated life-testing of plastics, B. Cassel and A. P. Gray, May, p. 56

Designing with plastics—PVC profiles in construction, R. C. Durham, Jr., June, p. 21

Resin report '77—a new high in sight, PE Staff, September, p. 19

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

Additives for plastics—a multifunctional lubricant, P. R. Brostean, November, p. 29

Measuring thermal stability of polymers, C. H. Stapfer, December, p. 35

113. Printing

Corona-discharge treatment of polyolefin films, R. M. Sonkin, February, p. 50

114. Processing

The ABCs of electroplating ABS, N. Anis, January, p. 14

Plastics analysis—a way to save time and money, R. J. Richman, January, p. 18

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

How will plastic waste be reused in 20 years? H. P. Schreiber, January, p. 40

Processing plastics—spin casting thermoset parts, L. S. Schaer, February, p. 48

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

Today's polymer analyst is more than just a technical answer man, T. J. Gedemer, March, p. 55

Processing plastics—servocontrolled injection molding, M. A. Davis, April, p. 26

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Using liquid color to best advantage, J. P. Snow, Jr. and W. P. Arnheim, June, p. 17

Plastics processing systems: How does yours measure up? PE Staff, July, p. 27

Stretch-forming: a simple process with a lot of potential, P. M. Coffman, August, p. 19

Processing for properties, Engineering Properties and Structure Division, August, p. 58

When, where, and how to use polyimides, J. D. Hensel, October, p. 20

Machine-hour costs: processors must know them to survive, E. G. Slatcher, October, p. 26

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

Processing: flameproofing electronic components, G. F. Chadwick and J. F. Ott, November, p. 49

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

Measuring thermal stability of polymers, C. H. Stapfer, December, p. 35

Additives for plastics—blowing agents, PE Staff, December, p. 17

115. Product Liability

The case for independent testing for product safety, W. E. Zavitz and C. M. Hauser, December, p. 33

116. Profiles

Designing with plastics—PVC profiles in construction, R. C. Durham, Jr., June, p. 21

R

117. Recycling

How will plastic waste be reused in 20 years? H. P. Schreiber, January, p. 40

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

118. Regional Technical Conference

Designing and molding with thermosets, Philadelphia Section, January, p. 57

Rigid vinyls: A review and what's new, Delware Valley Section, January, p. 58

The law and you, Eastern New England Section, August, p. 59

Thermosets versus high-performance thermoplastics, Connecticut Section, August, p. 60

Plastics molds/dies—design/construction, Palisades, Philadelphia, and Newark Sections, August, p. 61

Decorating Plastics 1980, Chicago Section, September, p. 65

119. Reinforced Plastics

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Reinforced-plastics markets attain new highs, March, p. 20

Better rigidized-acrylic parts by design, R. Montella, March, p. 48

Using carbon fibers to reinforce plastics, M. B. Dowell, April, p. 31

Processing plastics—visible-light curing of polyesters, D. M. Longenecker and G. G. Greth, May, p. 52

Injection-moldable GRP—a challenge to designers, M. L. Callahan, August, p. 25

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

120. Reinforcements

Using carbon fibers to reinforce plastics, M. B. Dowell, April, p. 31

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Additives for plastics: fillers and reinforcements, R. W. Kuchkuda, July, p. 45

Injection-moldable GRP—a challenge to designers, M. L. Callahan, August, p. 25

Processed mineral fiber—a polymer reinforcement, A. P. Conroy and D. L. Skinner, August, p. 28

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

121. Resins

Resin report '77—a new high in sight, PE Staff, September, p. 19

122. Resources

Optimizing the use of resources, PRI Conference at Interplas '77, August, p. 62

123. Rheological Properties

A close look at PVC today, W. R. Sorenson, April, p. 22

S

124. Safety

Rigid vinyls: A review and what's new, Delaware Valley Section, January, p. 58

Federal laws and the molder: how to learn to live with them, R. S. DeBell, June, p. 27

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

NATEC-Denver, October, p. 41

Processing: flameproofing electronic components, G. F. Chadwick and J. F. Ott, November, p. 49

The case for independent testing for product safety, W. E. Zavitz and C. M. Hauser, December, p. 33

125. Sales

Resin report '77—a new high in sight, PE Staff, September, p. 19

126. Screw Design

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

127. Sensitivity

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

128. Sheet

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

129. Shrinkage

How to compensate for flow behavior in injection molds, D. B. Hunkar, July, p. 40

130. Society

SPE's Pickering ends a year of wide travel, February, p. 29

NPE/76 was bigger than ever, February, p. 30

SPE's 35th annual technical conference, G. R. Forger, March, p. 22

Who to look for at ANTEC, April, p. 18

1976-1977 SPE annual report, May, p. 41

ANTEC 77: Progress through people, July, p. 18

Report of the Commission on the Future of SPE, L. J. Broutman, August, p. 44

1977 SPE Directory, August, p. 63

Processing for properties, Engineering Properties and Structure Division, August, p. 58

Optimizing the use of resources, PRI Conference at Interplas '77, August, p. 62

NATEC Advance Program, September, p. 56

NATEC-Denver, October, p. 41

Interplas 77—the UK plastics industry is revived, PE Staff, November, p. 52

131. Solution Properties

Processing plastics—visible-light curing of polyester, D. M. Longenecker and G. G. Greth, May, p. 52

132. Spin Casting

Processing plastics—spin casting thermoset parts, L. S. Schaer, February, p. 48

133. Stabilizers

Discoloration of pigmented polyolefins, D. A. Holtzen, April, p. 43

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

Additives for plastics—polymeric antioxidants, P. L. Dubin and W. J. Leonard, Jr., October, p. 29

134. Statistics

Reinforced-plastics markets attain new highs, March, p. 20

Resin report '77—a new high in sight, PE Staff, September, p. 19

Interplas 77—the UK plastics industry is revived, PE Staff, November, p. 52

135. Strength

Plastics are getting better mileage in Detroit, PE Staff, May, p. 17

Designing with plastics—the need is for lighter cars, D. N. Yates, P. B. Moore, F. Tsou, C. L. Magee, and J. J. Harwood, July, p. 35

136. Stress-Strain

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

137. Stretch Forming

Stretch-forming: a simple process with a lot of potential, P. M. Coffman, August, p. 19

138. Structure

Additives for plastics—colorants, T. B. Reeve, August, p. 31

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

139. Styrene-Acrylonitrile

Resin report '77—a new high in sight, PE Staff, September, p. 19

140. Suppliers

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

Additives for plastics—polyurethane catalysts, L. R. Brecker, March, p. 39

Filling the additives hopper—a 1977 update, G. R. Forger, May, p. 20

Selecting UV stabilizers for top efficiency, R. W. Kuchkuda, June, p. 32

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

T

141. Technology

How will plastic waste be reused in 20 years? H. P. Schreiber, January, p. 40

Tips for engineering phenolic parts, R. L. Dow, February, p. 45

142. Temperature Dependence

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

A new high-performance fluoropolymer that can be readily melt-processed, P. S. Minhas and F. Petruccelli, March, p. 60

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Design—Polyacetal replaces metal in a computer print-out binder, R. W. Murphy, May, p. 50

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

Effect of molding conditions on mineral-filled PPS, C. W. Osborn and J. H. Walker, December, p. 25

143. Tensile Properties

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

144. Testing

Plastics analysis—a way to save time and money, R. J. Richman, January, p. 18

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Thermal analysis simplifies accelerated life-testing of plastics, B. Cassel and A. P. Gray, May, p. 56

Improving the physicals of impact polystyrene, J. A. Radosta, September, p. 28

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

The case for independent testing for product safety, W. E. Zavitz and C. M. Hauser, December, p. 33

Measuring thermal stability of polymers, C. H. Stapfer, December, p. 35

145. Theoretical Model

Processing plastics—servocontrolled injection molding, M. A. Davis, April, p. 26

146. Thermal Analysis

Thermal analysis simplifies accelerated life-testing of plastics, B. Cassel and A. P. Gray, May, p. 56

147. Thermoplastics

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Thermosets versus high-performance thermoplastics, Connecticut Section, August, p. 60

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

148. Thermosets

Additives for plastics—plasticizers, PE Staff, January, p. 32

Designing and molding with thermosets, Philadelphia Section, January, p. 57

Tips for engineering phenolic parts, R. L. Dow, February, p. 45

Processing plastics—spin casting thermoset parts, L. S. Schaer, February, p. 48

Processing plastics—recycle thermoset scrap effectively, S. H. Bauer, March, p. 44

Avoiding pitfalls in material selection, W. L. Erley, April, p. 40

Thermosets versus high-performance thermoplastics, Connecticut Section, August, p. 60

Evaluating polymers by dynamic mechanical analysis, R. L. Hassel, October, p. 37

What to use: reinforced thermoplastics or thermosets, M. E. Wheeler, November, p. 41

An equipment manufacturer looks at thermosets versus high-performance thermoplastics, S. H. Bauer, December, p. 28

149. Tooling

Processing plastics—make a production part from a test mold, S. Newman, F. Pink, and D. Fesko, January, p. 22

Extrusion of small-diameter polybutylene pipe, M. P. Schard and O. E. Vera, October, p. 45

150. Toxicity

Additives for plastics—flame retardants, R. C. Kidder, February, p. 38

The art of selecting pigments for hot-stamping foils, H. J. Conklin, August, p. 22

V

151. Vinyls

Rigid vinyls: A review and what's new, Delaware Valley Section, January, p. 58

152. Viscoelastic Properties

Designing with plastics—engineering polycarbonate parts, R. J. Kahl, January, p. 26

153. Viscosity

An alternative to characterizing UHMW PE by molecular weight, A. Barlow and T. Ryle, August, p. 41

W

154. Waste

How will plastic waste be reused in 20 years? H. P. Schreiber, January, p. 40

155. Weathering

Additives for plastics—impact modifiers for PVC, L. W. Peacock, III and J. T. Lutz, Jr., April, p. 36

156. Wire

Additives for plastics—heat stabilizers for PVC, PE Staff, September, p. 43

Author Index

Numbers refer to category headings in Subject and title index. i.e., 76, see Melt Processing

Anis, N. 1, 32, 43, 60, 114
Arnheim, W. M. 1, 4, 21, 38, 89, 107, 108, 114
Barlow, A. 2, 18, 78, 101, 153
Bauer, S. H. 32, 38, 65, 70, 77, 93, 114, 117, 126, 147, 148
Brecker, L. R. 4, 16, 41, 56, 75, 84, 93, 110, 140
Brostean, P. R. 4, 47, 69, 89, 91, 112
Broutman, L. J. 130
Callahan, M. L. 32, 58, 100, 119, 120
Cassel, B. 6, 93, 112, 144, 146
Chadwick, G. F. 44, 50, 52, 114, 124
Chung, C. I. 32, 46, 70
Coffman, P. M. 70, 85, 107, 114, 137
Conklin, H. J. 57, 61, 90, 150
Conroy, A. P. 58, 82, 87, 89, 98, 120
Davis, M. A. 65, 77, 93, 114, 145
DeBell, R. S. 77, 124
Dow, R. L. 32, 77, 88, 141, 148
Dowell, M. B. 4, 9, 15, 119, 120
Dubin, P. L. 4, 8, 12, 31, 64, 124, 133
Durham, R. C., Jr. 23, 32, 93, 112, 116
Eichhorn, R. M. 9, 42, 52 74, 89, 109
Erley, W. L. 32, 73, 77, 88, 98, 142, 147, 148
Fesko, D. 48, 53, 89, 100, 114, 119, 142, 144, 149
Forger, G. R. 4, 7, 13, 21, 48, 51, 69, 92, 120, 130, 133, 140
Gedemer, T. J. 6, 103, 114
Gervasi, J. 4, 32, 48, 77, 82, 89
Gray, A. P. 6, 93, 112, 144, 146
Greth, G. G. 67, 68, 89, 91, 93, 100, 114, 119, 131
Hallas, R. S. 4, 9, 11, 32, 38, 93
Harwood, J. J. 9, 11, 22, 32, 38, 45, 59, 89, 93, 135
Hassel, R. L. 9, 30, 36, 41, 45, 66, 119, 144, 147, 148
Hauser, C. M. 115, 124, 144
Hensel, J. D. 9, 32, 89, 102, 114
Holtzen, D. A. 33, 75, 90, 104, 133
Hunkar, D. B. 54, 65, 129
Kahl, R. J. 9, 25, 26, 32, 99, 136, 152
Kidder, R. C. 4, 9, 45, 51, 93, 101, 104, 108, 110, 112, 140, 150
Kroha, C. E. 9, 70, 71, 77, 94
Kruder, G. A. 9, 32, 46, 47, 70, 101, 107, 108
Kuchkuda, R. W. 4, 31, 48, 75, 93, 120, 127, 133, 140
Lauer, B. L. 39, 93
Leonard, W. J., Jr. 4, 8, 10, 31, 64, 124, 133
Longenecker, D. M. 68, 89, 91, 93, 100, 114, 119, 131
Lutz, J. T., Jr. 4, 9, 62, 63, 87, 89, 112, 155
Magee, C. L. 9, 11, 22, 32, 38, 45, 59, 63, 89, 93, 135
Minhas, P. S. 9, 26, 55, 76, 89, 142
Montella, R. 3, 22, 32, 89, 114, 119
Moore, P. B. 9, 11, 22, 32, 38, 45, 59, 63, 89, 93, 135
Murphy, R. W. 10, 32, 95, 142
Newman, S. 48, 53, 89, 100, 114, 119, 142, 144, 149
Oostermeyer, J. S. 34, 83
Osborn, C. W. 4, 9, 18, 27, 48, 89, 106, 142
Osmer, D. 19, 20, 90
Ott, J. F. 44, 50, 52, 114, 124
Peacock, L. W., III 4, 9, 62, 63, 87, 89, 112, 155
Petruccelli, F. 9, 26, 55, 76, 89, 142
Pink, F. 48, 53, 89, 100, 114, 119, 142, 144, 149
Radosta, J. A. 4, 48, 63, 89, 108, 143, 144
Reeve, T. B. 4, 20, 21, 90, 93, 138
Richman, R. J. 6, 93, 114, 144
Ridenour, R. E. 9, 32, 46, 47, 70, 101, 107, 108
Ryle, T. 2, 18, 78, 101, 153
Schaer, L. S. 93, 114, 132, 148
Schard, M. P. 47, 91, 97, 126, 138, 142, 149
Schreiber, H. P. 37, 93, 114, 117, 141, 154
Seymour, R. B. 93
Skinner, D. L. 58, 82, 87, 89, 98, 120
Slatcher, E. G. 38, 40, 77, 114
Snow, J. P., Jr. 1, 4, 21, 38, 89, 107, 108, 114
Sonkin, R. M. 24, 49, 101, 104, 113
Sorenson, W. R. 14, 72, 79, 112, 123
Stapfer, C. H. 28, 31, 112, 114, 144
Stewart, D. E. 4, 32, 48, 77, 82, 89
Telofski, S. 5, 11, 32, 88, 89, 98, 100
Tsou, F. 9, 11, 32, 38, 45, 59, 63, 89, 93, 135
Vera, O. E. 47, 91, 97, 126, 138, 142, 149
Walker, J. H. 4, 9, 18, 27, 48, 89, 106, 142
Wheeler, M. E. 22, 58, 89, 114, 119, 120, 147, 148
Wiegand, H. G. 39, 93
Yates, D. N. 9, 11, 22, 32, 38, 45, 59, 63, 89, 93, 135
Zavitz, W. E. 115, 124, 144